



## Mobile Application Development Course Descriptor

Course Title	Mobile Application Development	Faculty	Philosophy
Course code	NCHCS765	Course Leader	TBA
Credit points	15	Teaching Period	Any
FHEQ level	Level 7	Date approved	September 2020
Compulsory/ Optional	Compulsory		
Pre-requisites	None		
Co-requisites	None		

### COURSE SUMMARY

This course offers the fundamentals for understanding mobile application design and development. For practice, the course builds upon the Android development platform. The course covers UX design, data management, network techniques and use of mobile sensing (e.g. GPS and accelerometers).

Students are expected to design and develop a high-quality mobile application that addresses a real-world problem in an innovative way. Coursework will include project conception, design, implementation, and pilot testing of mobile phone software applications.

### COURSE AIMS

The aims of this course are:

- Understand unique aspects of mobile application programming
- Design and prototype sophisticated mobile applications
- Develop Android applications that take advantage of advanced phone features and deploy them in the marketplace

## LEARNING OUTCOMES

On successful completion of the course, students will be able to:

### KNOWLEDGE AND UNDERSTANDING

- K1d Master practical tools, methods and techniques for the design, implementation, and pilot testing of mobile phone software applications.
- K2d Understand advanced aspects of mobile application development such as memory and process management, user interface design, data handling, network techniques and use of mobile sensing.
- K3d Evaluate the technical, social, and business dimensions of mobile applications using industrial standards.

### SUBJECT SPECIFIC SKILLS

- S1d Critically assess existing mobile applications on their design and implementation.
- S2d Become a sophisticated mobile application developer familiar with the best coding practices and industry standards in the Android application ecosystem.
- S3d Design and develop a professional-quality Android mobile application that addresses a real-world problem in an innovative way.

### TRANSFERABLE AND PROFESSIONAL SKILLS

- T1d Complete a working application, from inception to deployment in the market.  
and  
4d
- T2d Present and demonstrate effectively to peers as well as prospective users the design choices and usability of an application.
- T2d Consistently apply an excellent level of technical proficiency in written English, using an advanced application of scholarly terminology, that demonstrates the ability to deal with complex issues both systematically and with sophistication.
- T3d Work to develop an app in a team (optional).

## TEACHING AND LEARNING

Teaching and learning strategies for this course will include:

- 30 hours of full-cohort lectures
- 20 hours of lab-based tutorials
- 1 office hour per teaching week

There will be three 1-hour lectures per teaching week. Two 1-hour lab sessions will give students the opportunity to work on their assignments with the help of the course leader and teaching assistants.

Course information and supplementary materials are available on the College's Virtual Learning Environment (VLE).

Students will also attend the formal meeting, Collections, in which they will receive constructive and developmental feedback on their performance.

Students are required to attend and participate in all the formal and timetabled sessions for this course. Students are also expected to manage their directed learning and independent study in support of the course.

### EMPLOYABILITY SKILLS

- Communication Skills
- Programming skills
- Team-based project skills

### ASSESSMENT

#### FORMATIVE

Students will be formatively assessed during the course by means of set assignments. These do not count towards the end of year results but will provide students with developmental feedback. Set assignments will also amplify problem-solving skills useful for the set exercises and develop software components that form part of the students' projects.

#### SUMMATIVE

Assessment will be in two forms:

AE:	Assessment Activity	Weighting (%)	Online submission	Duration	Length
1	Set exercises	50	Yes	N/A	Code and up to 2500-word explanation
2	Project	50	Yes	N/A	Code and up to 2500-word documentation

Both the set exercises and the project will be assessed in accordance with the assessment aims set out in the Programme Specification.

### FEEDBACK

Students will receive formal feedback in a variety of ways: written (including via email correspondence); oral (within one-to-one tutorials or on an *ad hoc* basis) and indirectly through discussion during group tutorials.

Feedback is provided on summative assessment and is made available to the student either via email, the VLE or another appropriate method.

### INDICATIVE READING

Note: Comprehensive and current reading lists for courses are produced annually in the Course Syllabus or other documentation provided to students; the indicative reading list provided below is used as part of the approval/modification process only.

**BOOKS**

Ed Burnette. 2015. Hello, Android: Introducing Google's Mobile Development Platform (4th. ed.). Pragmatic Bookshelf

**ELECTRONIC RESOURCES**

[Android Developer Guides](#), by Google. Last accessed August 2020

**INDICATIVE TOPICS**

Students will study the following topics:

- Mobile programming
- Rapid prototyping techniques
- App development process – start to finish
- Mobile sensing

<b>Title: NCHCS765 Mobile Application Development Course Descriptor</b>					
<b>Approved by: Academic Board</b>					
<b>Location: Academic Handbook/Programme specifications and Handbooks/ Postgraduate Programme Specifications/MSc Computer Science Programme Specification/Course Descriptors</b>					
Version number	Date approved	Date published	Owner	Proposed next review date	Modification (As per AQF4) & category number
2.0	January 2022	April 2022	Dr Alexandros Koliouis	April 2025	Category 3: Changes to Course Learning Outcomes
1.0	September 2020	September 2020	Dr Alexandros Koliouis	April 2025	